

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a computing system that includes one or more processors, persistent media configured to store information that persists through power loss of the computing system, and system memory that ~~may be more~~is directly accessed by the one or more processors, the computing system operable in both normal mode and recovery mode, a method for the computing system operating in recovery mode while ensuring reliable message processing for messages received during the recovery mode operations, the method comprising the following:

an act of receiving a message corresponding to a particular message transaction, wherein the message is a normal message suitable for normal mode operations and an instance governing the particular message transaction is in a recovery mode rather than a normal mode;

upon receiving the message, an act of determining from state information corresponding to the particular message transaction that ~~[[an]]-the~~ instance governing the particular message transaction is in the recovery mode rather than the normal mode;

an act of determining that the received message is a normal message suitable for normal mode operations, wherein the received message cannot be processed until the instance is in the normal mode;

an act of placing the received message into a persistent queue for later processing when the instance is in the normal mode rather than the recovery mode; and

an act of completing recovery mode operation.

2. (Currently Amended) The ~~[[A]]~~ method in accordance with Claim 1, further comprising the following:

an act of loading the state information from persistent media into system memory in response to the act of receiving the message.

3. (Currently Amended) The [[A]] method in accordance with Claim 1, further comprising the following:

an act of saving the state information into persistent media after the act of placing the message into the persistent queue.

4. (Currently Amended) The [[A]] method in accordance with Claim 1, wherein the message is a first message, the method further comprising the following:

an act of receiving a second message corresponding to the particular message transaction;

upon receiving the second message, an act of determining from state information corresponding to the particular message transaction that the instance governing the state information [[in]] is still in the recovery mode rather than the normal mode;

an act of determining that the second message is a recovery message suitable for recovery mode operations and not suitable for normal mode operations; and

an act of processing the recovery message.

5. (Currently Amended) The [[A]] method in accordance with Claim 4, further comprising the following:

an act of loading the state information from persistent media into system memory in response to the act of receiving the second message.

6. (Currently Amended) The [[A]] method in accordance with Claim 4, further comprising the following:

an act of saving the state information into persistent media after the act of processing the recovery message.

7. (Currently Amended) The [[A]] method in accordance with Claim 4, further comprising the following:

an act of determining that the processing of the recovery message completes recovery of the instance governing the particular message transaction.

8. (Currently Amended) The [[A]] method in accordance with Claim 7, further comprising the following:

an act of setting the state information to reflect normal operation mode, wherein the act of saving the state information into persistent media after the act of processing the recovery message occurs after the act of setting the state information to reflect normal operation mode.

9. (Currently Amended) The [[A]] method in accordance with Claim 8, further comprising the following:

an act of processing one or more normal messages in the queue in response to the act of determining that the processing of the recovery message completes recovery of the instance governing the particular message transaction.

10. (Currently Amended) A computer program product for use in a computing system that includes one or more processors, persistent media configured to store information that persists through power loss of the computing system, and system memory that ~~may be more~~is directly accessed by the one or more processors, the computing system operable in both normal mode and recovery mode, the computer program product for implementing a method for the computing system operating in recovery mode while ensuring reliable message processing for messages received during the recovery mode operations, the computer program product comprising one or more computer-readable storage media having stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to perform the following:

an act of receiving a message corresponding to a particular message transaction, wherein the message is a normal message suitable for normal mode operations and an instance governing the particular message transaction is in a recovery mode rather than a normal mode;

upon receiving the message, an act of determining from state information corresponding to the particular message transaction that ~~[[an]]~~ the instance governing the particular message transaction is in recovery mode rather than the normal mode;

an act of determining that the received message is a normal message suitable for normal mode operations, wherein the message cannot be processed until the instance is in the normal mode;

an act of placing the received message into a persistent queue for later processing when the instance is in the normal mode rather than the recovery mode; and

an act of completing recovery mode operation.

11. (Currently Amended) The ~~[[A]]~~ computer program product in accordance with Claim 10, wherein the one or more computer-readable storage media comprise physical memory media.

12. (Currently Amended) The ~~[[A]]~~ computer program product in accordance with Claim 11, wherein the physical memory media comprises persistent media.

13. (Currently Amended) The [[A]] computer program product in accordance with Claim 11, wherein the physical memory media comprises system memory.

14. (Currently Amended) The [[A]] computer program product in accordance with Claim 10, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of loading the state information from persistent media into system memory in response to the act of receiving the message.

15. (Currently Amended) The [[A]] computer program product in accordance with Claim 10, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of saving the state information into persistent media after the act of placing the message into the persistent queue.

16. (Currently Amended) The [[A]] computer program product in accordance with Claim 10, wherein the message is a first message, and the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of receiving a second message corresponding to the particular message transaction;
upon receiving the second message, an act of determining from state information corresponding to the particular message transaction that the instance governing the state information [[in]] is still in the recovery mode rather than the normal mode;

an act of determining that the second message is a recovery message suitable for recovery mode operations and not suitable for normal mode operations; and

an act of processing the recovery message.

17. (Currently Amended) The [[A]] computer program product in accordance with Claim 16, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of loading the state information from persistent media into system memory in response to the act of receiving the second message.

18. (Currently Amended) The [[A]] computer program product in accordance with Claim 16, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of saving the state information into persistent media after the act of processing the recovery message.

19. (Currently Amended) The [[A]] computer program product in accordance with Claim 16, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of determining that the processing of the recovery message completes recovery of the instance governing the particular message transaction.

20. (Currently Amended) The [[A]] computer program product in accordance with Claim 19, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of setting the state information to reflect normal operation mode, wherein the act of saving the state information into persistent media after the act of processing the recovery message occurs after the act of setting the state information to reflect normal operation mode.

21. (Currently Amended) The [[A]] computer program product in accordance with Claim 20, wherein the one or more computer-readable storage media further have stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to further perform the following:

an act of processing one or more normal messages in the queue in response to the act of determining that the processing of the recovery message completes recovery of the instance governing the particular message transaction.

22. (Currently Amended) In a computing system that includes one or more processors, persistent media configured to store information that persists through power loss of the computing system, and system memory that ~~may be more~~is directly accessed by the one or more processors, the computing system operable in both normal mode and recovery mode, a method for the computing system operating in recovery mode while ensuring reliable message processing for messages received during the recovery mode operations, the method comprising the following:

an act of receiving a message corresponding to a particular message transaction, wherein the message is a normal message suitable for normal mode operations and an instance governing the particular message transaction is in a recovery mode rather than a normal mode;

upon receiving the message, an act of determining from state information corresponding to the particular message transaction that ~~[[an]]~~ the instance governing the particular message transaction is in the recovery mode rather than the normal mode; and

a step for recovering while preserving ~~[[such-]]~~received normal messages for use in normal mode.

23. (Currently Amended) The ~~[[A]]~~ method in accordance with Claim 22, wherein the step for recovering while preserving such messages comprises the following:

an act of determining that the received message is a normal message suitable for normal mode operations, wherein the instance cannot process the normal message when the instance is in the recovery mode;

an act of placing the received message into a persistent queue for later processing when the instance is in the normal mode rather than the recovery mode; and

an act of completing recovery mode operation.